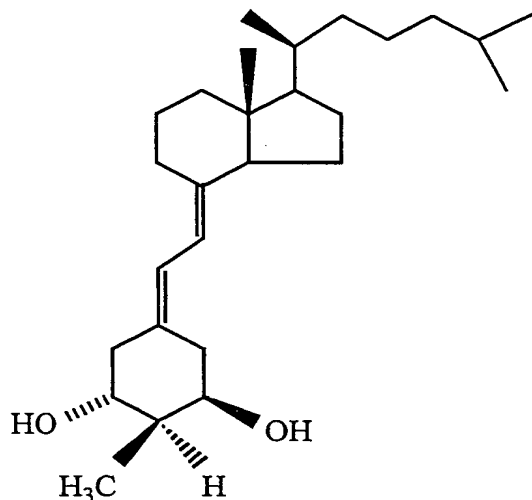


CLAIMS

We claim:

1. A method of treating psoriasis comprising administering to a patient with psoriasis an effective amount of (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ having the formula:



2. The method of claim 1 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin is administered orally.

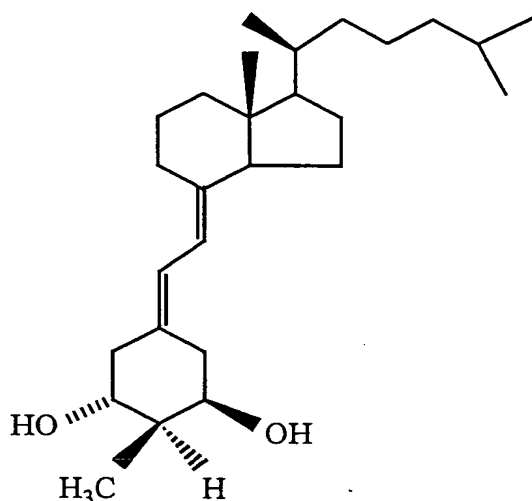
3. The method of claim 1 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin is administered parenterally.

4. The method of claim 1 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin is administered transdermally.

5. The method of claim 1 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin is administered topically.

6. The method of claim 1 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

7. A method of treating a disease selected from the group consisting of leukemia, colon cancer, breast cancer or prostate cancer comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin having the formula:



8. The method of claim 7 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered orally.

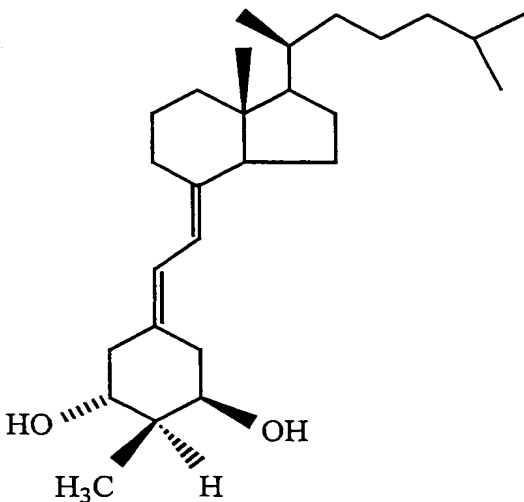
9. The method of claim 7 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered parenterally.

10. The method of claim 7 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered transdermally.

11. The method of claim 7 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

12. A method of treating an autoimmune disease selected from the group consisting of multiple sclerosis, lupis, diabetes, mellitus, host versus graft reaction, and rejection of organ transplants, comprising administering to a patient

with said disease an effective amount of (20S)-1 α -hydroxy-2 α -methyl-19-nor-
5 vitamin D₃ having the formula:



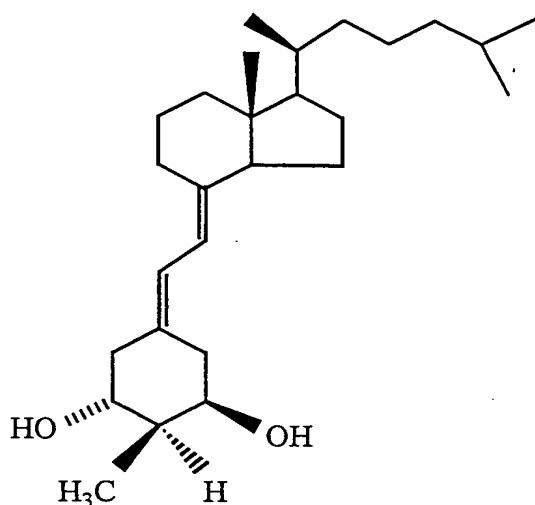
13. The method of claim 12 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered orally.

14. The method of claim 12 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered parenterally.

15. The method of claim 12 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered transdermally.

16. The method of claim 12 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

17. A method of treating an inflammatory disease selected from the group consisting of rheumatoid arthritis, asthma, and inflammatory bowel diseases, comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ having the formula:



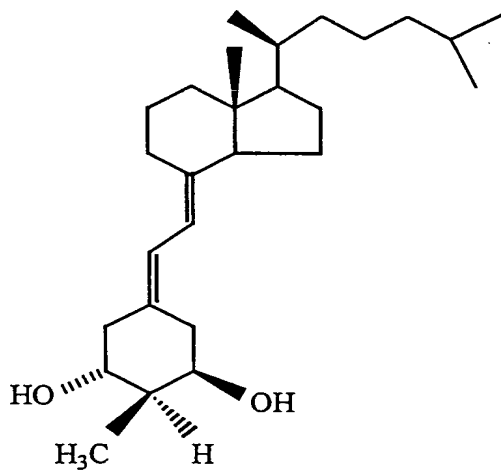
18. The method of claim 17 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered orally.

19. The method of claim 17 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered parenterally.

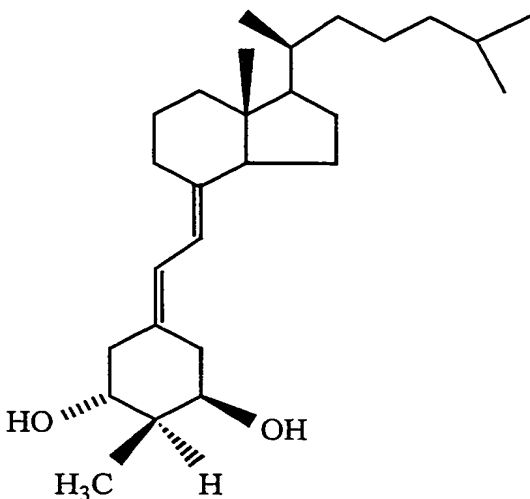
20. The method of claim 17 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered transdermally.

21. The method of claim 17 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

22. (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ having the formula:



23. A method of treating a skin condition selected from the group consisting of wrinkles, lack of adequate skin firmness, lack of adequate dermal hydration and insufficient sebum secretion which comprises administering to a patient with said skin condition an effective amount of (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ having the formula:
- 5



24. The method of claim 23 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered orally.

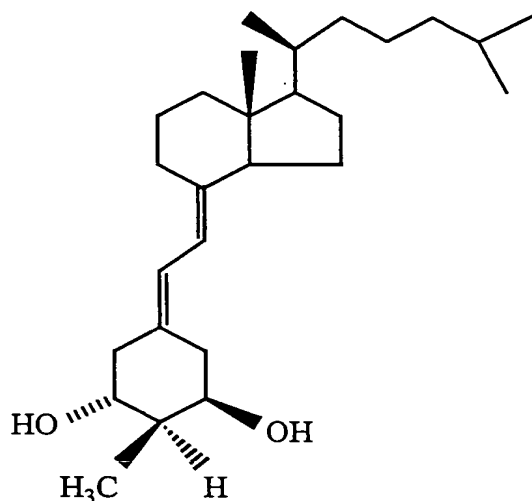
25. The method of claim 23 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered parenterally.

26. The method of claim 23 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered transdermally.

27. The method of claim 23 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered topically.

28. The method of claim 23 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

29. A method of treating a metabolic bone disease where it is desired to maintain or increase bone mass comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ having the formula:



30. The method of claim 29 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered orally.

31. The method of claim 29 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered parenterally.

32. The method of claim 29 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered transdermally.

33. The method of claim 29 wherein (20S)-1 α -hydroxy-2 α -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

34. The method of claim 29 wherein the disease is senile osteoporosis.

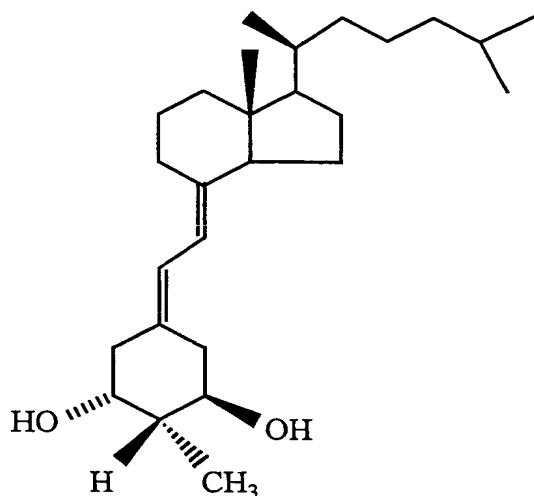
35. The method of claim 29 wherein the disease is postmenopausal osteoporosis.

36. The method of claim 29 wherein the disease is steroid-induced osteoporosis.

37. The method of claim 29 wherein the disease is low bone turnover osteoporosis.

38. The method of claim 29 wherein the disease is osteomalacia.

39. A method of treating psoriasis comprising administering to a patient with psoriasis an effective amount of (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ having the formula:



40. The method of claim 39 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered orally.

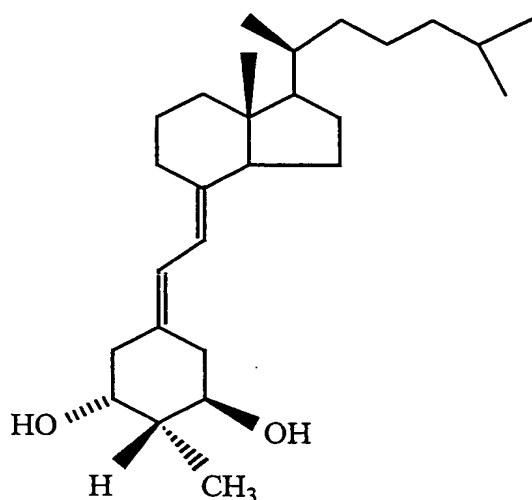
41. The method of claim 39 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered parenterally.

42. The method of claim 39 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered transdermally.

43. The method of claim 39 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered topically.

44. The method of claim 39 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

45. A method of treating a disease selected from the group consisting of leukemia, colon cancer, breast cancer or prostate cancer comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ having the formula:



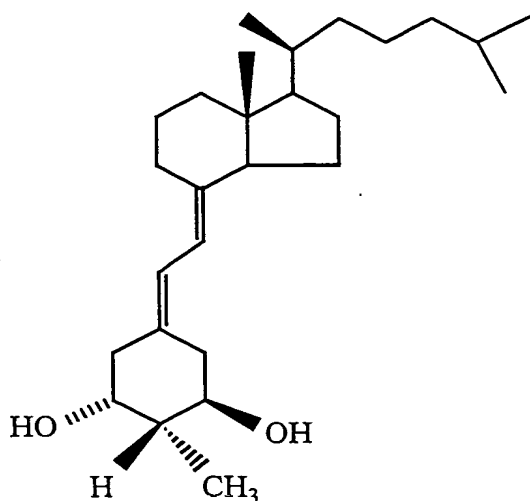
46. The method of claim 45 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered orally.

47. The method of claim 45 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered parenterally.

48. The method of claim 45 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered transdermally.

49. The method of claim 45 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

50. A method of treating an autoimmune disease selected from the group consisting of multiple sclerosis, lupus, diabetes, mellitus, host versus graft reaction, and rejection of organ transplants, comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 β -methyl-19-nor-
5 vitamin D₃ having the formula:



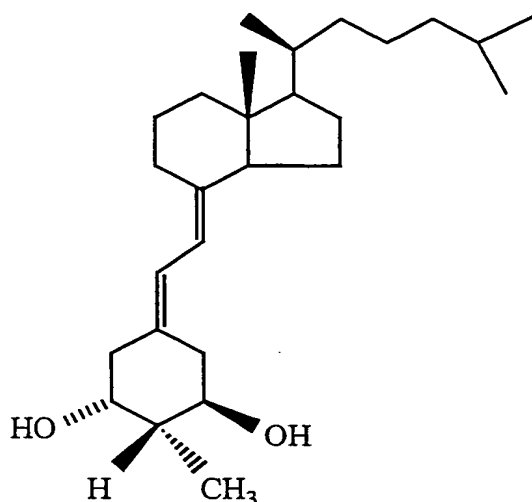
51. The method of claim 50 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered orally.

52. The method of claim 50 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered parenterally.

53. The method of claim 50 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered transdermally.

54. The method of claim 50 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

55. A method of treating an inflammatory disease selected from the group consisting of rheumatoid arthritis, asthma, and inflammatory bowel diseases, comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ having the formula:



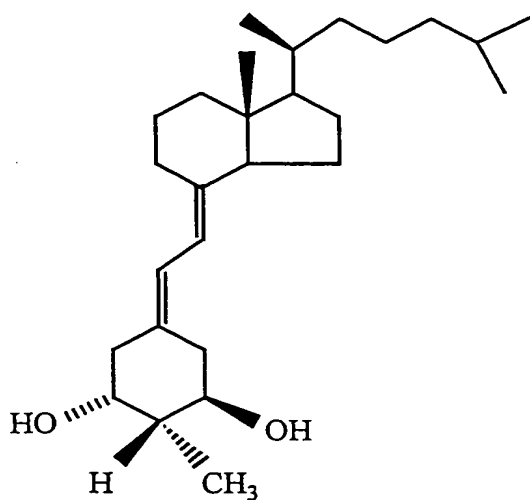
56. The method of claim 55 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered orally.

57. The method of claim 55 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered parenterally.

58. The method of claim 55 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered transdermally.

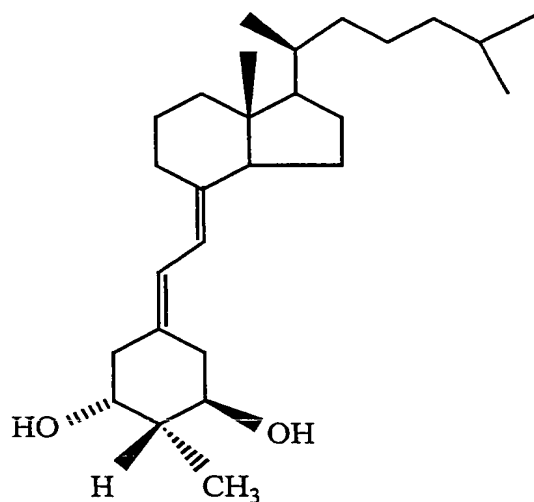
59. The method of claim 55 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

60. (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ having the formula:



61. A method of treating a skin condition selected from the group consisting of wrinkles, lack of adequate skin firmness, lack of adequate dermal hydration and insufficient sebum secretion which comprises administering to a patient with said skin condition an effective amount of (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ having the formula:

5



62. The method of claim 61 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered orally.

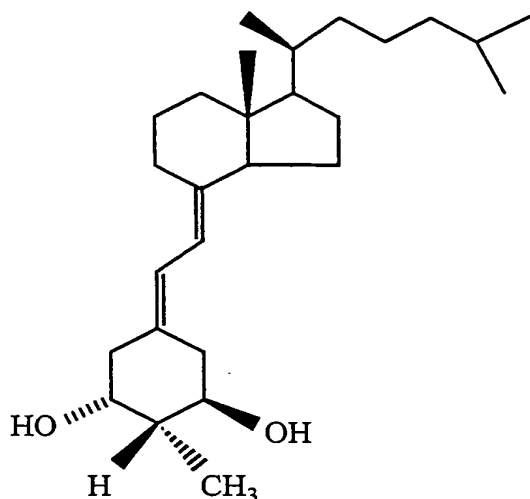
63. The method of claim 61 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered parenterally.

64. The method of claim 61 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered transdermally.

65. The method of claim 61 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered topically.

66. The method of claim 61 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

67. A method of treating a metabolic bone disease where it is desired to maintain or increase bone mass comprising administering to a patient with said disease an effective amount of (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ having the formula:



68. The method of claim 67 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered orally.

69. The method of claim 67 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered parenterally.

70. The method of claim 67 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered transdermally.

71. The method of claim 67 wherein (20S)-1 α -hydroxy-2 β -methyl-19-nor-vitamin D₃ is administered in a dosage of from about 0.01 μ g/day to about 100 μ g/day.

72. The method of claim 67 wherein the disease is senile osteoporosis.

73. The method of claim 67 wherein the disease is postmenopausal osteoporosis.

74. The method of claim 67 wherein the disease is steroid-induced osteoporosis.

75. The method of claim 67 wherein the disease is low bone turnover osteoporosis.

76. The method of claim 67 wherein the disease is osteomalacia.

77. A compound having the formula:

